

## EDITORIAL ARTICLES.

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### ON THE ORGANIZATION OF THE SURGICAL STAFF IN GENERAL HOSPITALS.

The matters relating to the question of the organization of the Surgical Staff in a General Hospital have recently been brought strongly to the attention of the writer in connection with the duty of advising as to the organization of the staff of a new hospital. The most cursory attention to the subject was enough to show that this question was one of the utmost importance in its bearing upon the quality of the work done in a hospital, and upon its influence upon surgical teaching and practice beyond the walls of the institution. In the possibility, therefore, of building *ab initio* which a new enterprise afforded, there resided good reasons why a comprehensive review of the whole subject ought to be made, so that those methods might be recommended which such a review should demonstrate to be of the most value when taken in connection with the special circumstances of the particular hospital.

The interest in a general review of this subject ought not to be confined merely to those connected with institutions now in their creative stage, for one cannot proceed far in an examination of already existing institutions before discovering that serious faults of organization exist in very many. It is undeniable that in many instances faults of organization are rendered less conspicuous and harmful by a superior quality of the personnel of the staff. It is also equally true that the most perfect organization may be neutralized by an inferior personnel. But neither of these possibilities presents any valid reason why perfection of organization should not still be sought for. The better the organization, the better will be the work that is done, and in quantity as well as in quality will the increase be seen; while for inferior work the responsibility will be the more certainly located.

It is a mistake to suppose that the members of the Directing Boards of hospitals, or those immediately connected with the surgical or medical work of the same, are the only ones much interested in questions pertaining to the interior organization for carrying on the scientific work of the same. While it goes without saying that the first object for which a hospital is created is for the relief of the sick that fill its beds, it should never be forgotten that by the aggregation of the sick, and by the facilities for systematic investigation, observation and treatment which a hospital presents, the greatest opportunities are afforded for advancing medical knowledge. In the manner in which these opportunities are utilized every one, and especially every medical practitioner, is vitally interested. To obtain an hospital appointment is a privilege that may well be sought for by any one with the qualifications for it, but he who is honored with the opportunities which such a position affords becomes thereby a debtor to all his fellows, through the obligation which attaches to the position, to use it, not only for the immediate good of the hospital inmates, but also for the common good. The medical profession at large have a right to sit in judgment upon the favored few of their number who hold hospital positions as to the manner in which they fulfill this obligation. But further than this—and this is the point most germane to the special theme under discussion, for which the preceding thoughts have been necessary as a prelude—the medical profession, as a whole, are deeply interested in the manner in which hospital authorities organize their institutions so as to favor this broader and higher scientific work of their medical staffs. There is a special reason for an active manifestation of this interest, both in the United States of America and in Great Britain, dependent upon the fact that in many cases it is undoubtedly true that methods and practices have been adopted in public, as well as in the more private incorporated institutions, which are quite in disregard of the considerations as to the broader and more general relations of the scientific work within their walls above referred to. The rectification of such abuses must be a matter of time, but in their final accomplishment much will depend upon an enlightened consciousness of opinion throughout the medical profession. As a consensus to the formation of such a desirable consensus of opinion the present discussion is intended.

A personal inspection of the methods of organization adopted in representative hospitals in France, Germany and England, as well as in the United States of America, will show decided differences to exist among them all. Each method has, of course, its history. What at present exists is the result of a process of development, influenced by the particular needs, modes of thought and social conditions existing in each country.

In France, as exemplified in the hospitals of Paris, the Government controls the hospitals, and by the complete system of centralization which exists, the entire number of public hospitals are combined to form a most important part in the arrangements for medical education provided by the state. All hospitals and other institutions for medical relief are under the direction of a board termed "*L'Administration Générale de l'Assistance Publique*", whose central office is in the center of Paris. All the appointments in connection with the medical staff of these hospitals are obtained by competitive examinations and tests called *concours*. The primary relation of all appointees is a general one, "to the hospitals of Paris." When thus first nominated, the nominees have to attend at the central office, and do duty for any of the hospital physicians or surgeons that may be absent. As vacancies occur in the hospitals they receive appointments in the order of their nomination. When the surgeons reach the age of 63, and physicians that of 65, they retire from hospital duty. Their positions are permanent, their service continuous. A small salary is paid to them: 1,200 francs yearly to those attached to hospitals centrally located, and 1,900 francs to those at greater distance, and 3,000 francs to the surgeons of the hospitals of Tenon, Bichat, Bicetre and Incurables. Each surgical service is completed by a corps of clinical assistants, called *internes* and *externes*, which positions are likewise obtained by "*concours*." The number of beds assigned to a single service will be from fifty to seventy-five, and for such a service from two to three internes, and double the number of externes will be provided. The interne is the immediate assistant of his chief; he accompanies him in his morning visit—8 o'clock in the morning is the usual hour for hospital visits—and himself visits the patients in the evening. The externes constitute a corps of junior assistants. The *externat* is an essential step to the *internat*. The internes

are appointed for two years, and the highest honor attainable in the competitions for prizes that yearly take place is the privilege of two additional years of *internat*. Internes receive 600 francs yearly for the first year, 700 the second year, 800 the third year, and 1,000 the fourth year. Some are also provided with lodging, fire and light; others receive 400 francs in lieu of this. In addition, a corps of hospital pupils, "*élèves stagiaires*," is assigned to each service in accordance with the regulations of the Faculty of Medicine, which require that every aspirant to the grade of Doctor of Medicine shall fulfill a certain amount of clinical pupillage in the public hospitals of Paris. The assignments of pupils to particular hospitals is made by the central board of Public Charities, already named, except that students who pass their yearly examinations with exceptional merit are permitted to select the hospital to which they may prefer to be attached.

¶ The advantages of such a system as this are very great. As a matter of organization it is simply perfect, but it could be duplicated in its details only in social and governmental conditions that were identical with those in Paris. Out of this system was developed the great superiority which French surgery enjoyed a generation ago. It has its dangers, however, in that it tends to foster a spirit of self-satisfaction by reason of the feeling of superior merit which a successful competitive effort tends to engender in the victor in the contest—a feeling which, if widespread, tends to hamper progress and render its possessors oblivious to progress being made elsewhere. It is to be urged against the *concours* also that it is by no means an accurate gauge of the real worth, attainments, or working power of men. To this it may be replied that it is a much better gauge than that which is supplied by family or political or personal reasons that so often govern such appointments where the *concours* is not in vogue. No one who knows anything of human nature would claim that such considerations were not sometimes of weight in determining the result of a *concours* even, but still, upon the whole, it is undeniable that among younger men whose work is yet to be done, simple merit is much more likely to obtain the advancement which it deserves through the method of the *concours* than by any other method. Aside from this peculiarity of the French system, the most noteworthy feature is the solidarity of each

service. From the chief of the service to the junior *stagiaire* it is a unit, and is capable of being handled as a whole. It does not undergo disintegration at short intervals, there are no divided counsels, no interrupted work. Responsibility can always be fixed, and merit can be determined. For any line of work or observation the chief of a service has a trained corps of assistants that belong to him personally, upon whom he can rely. In this connection, too, it must be considered that the number of beds assigned to each service is sufficiently large to afford an ample and constantly interesting field for its chief, while not too great to enable him, with his corps of assistants, to personally direct the whole of it. It is in these latter matters that the most valuable suggestions as to the organization of the surgical or medical work of a hospital in such a country as the United States are to be found.

In Germany important and representative hospitals may be found under the control of the state, municipalities, and also of religious bodies. Some of its finest hospitals are those provided by the state for furnishing clinical facilities for its universities. The German method—not to go unduly into detail—is to divide the patients in a hospital into the two great classes, medical and surgical, and to entrust the direction of each class, however large the number, to a single person, there being thus to each institution a chief physician and chief surgeon (*Oberaerzte*). These gentlemen spend a portion of every day, generally the mornings, at the hospitals, and devote the remainder of their time to their private business. They have no responsibility as regards the management of the internal economy of the institution; for this a third director, a layman, is appointed. A salary is paid to these directors sufficiently large to enable an institution to always command the continuous service of the most eminent men. In cases of vacancy occurring, it is not unusual for a man to be imported from another city to fill vacant positions when men of sufficient note are not at hand in the particular city. As types of this method may be cited the municipal hospitals of Berlin (at Friedrichshain) and of Hamburg. In the former of these the surgical director receives 6,000 marks yearly, and a residence, with allowances for maintenance, and in the latter 12,000 marks without residence or other allowance. It should be ob-

served that these sums represent a purchasing power in that country to natives of nearly double what the same amount would have in the United States; and, also, that the ordinary fees for medical service in Germany are less than half as great as in this country.

To assist these chief medical attendants in the details of the treatment of individual patients a corps of assistants is appointed, the number varying, usually being determined by the wish of the chief. These are young men, graduates in medicine (the French internes are always undergraduates); they live in the institution, devote their entire time to it, and receive a salary of 200 marks per month. As a rule such an assistant is expected to spend two years in his position, then giving way to a new appointee, but there will generally be one who, by reason of having shown exceptional ability, will be retained for a longer period, with an increased salary. Such a one is known as the "first assistant," and acts as the representative of the chief, when for any cause he may be absent. This system suits well the peculiar genius of the German nation. It is notable in the large amount of material that it puts under the continuous direction of one man, who is paid outright to look after it. It enables masters in their profession to impress their personalities upon the institutions with which they are connected; favors comprehensive, long-continued, accurate and minute observations and investigations into diseases, and into methods of treatment, and is fruitful in the training up of skilled medical men. To these conditions, together with the unequalled care and wisdom displayed by the general government in fostering the medical teaching at the universities, is due the acknowledged prominence to-day of German medicine in all its departments.

The method is open to the objection that the chief and responsible attendant sees but little of the individual patients, whose care is committed to too large a degree to the assistants. In mitigation of this it should be said that the skill and attainments of these assistants is usually of a high order, and with the opportunity that they have of consulting at once their chief in all cases of doubt or difficulty, the interests of the patients are generally safe in their hands.

In the hospitals organized in connection with the medical schools of the universities some minor modifications of this general plan may be found, but the method in its essential principles is retained.

Coming to the prevailing English system, taking the chief hospitals of London as types, an entirely different method of organization is found. The multiplication of individual hospitals is much greater, though this by no means involves a corresponding increase in the total hospital accommodation afforded. The tendency to the establishment of institutions devoted to the treatment of special classes of ailments is very marked. There is no central organization or general administration by which a harmony and economy of work may be secured. With the three exceptions of the old endowed hospitals of St. Bartholomew, St. Thomas, and Guy, they are dependent mainly on voluntary contributions of the charitable for their support, which they secure by appealing to the sentiment of the wealthy classes, and in order to make this appeal successful they are obliged to magnify the purely charitable character of their work; no payments for treatment are required from their beneficiaries, and, although the charity of these hospitals is confessedly abused by large numbers of persons who are able to pay for their treatment, the peculiar basis on which these institutions are sustained, and their attitude as rival claimants for the donations of a charitably disposed public, is such that their managers find themselves unable to check this abuse.

Founded as institutions for the dispensation of gratuitous medical relief, there was reason that they should look for the co-operation of the medical profession to furnish the needed medical attendance without salary, as its contribution to the general charity. This expectation was fully met, and at no time has any difficulty ever been experienced in securing the unpaid services of the required number of medical men for these institutions.

On the contrary, it has come to be the case that the only avenues to high professional position are found in these hospital positions, and hence they have become prizes to be sought for with the greatest eagerness. To some extent, at least, the great multiplication and subdivision into specialties of London hospitals is believed by writers upon the subject to be due to the pressure of ambitious men for hospital facilities and appointments which previously existing institutions have not been sufficient to gratify. That to a hospital connection should be attached so much importance by medical men is owing, in the main, to

three causes: first, the opportunities for professional observation and experience that the wards of a hospital afford; second, the especial prominence and influence among his fellows of the profession that a medical man may gain if he be permitted to use his opportunities for original research and for teaching; and, third, the increased public acquaintance and the certificate of professional merit that an hospital appointment confers. It is in the combination of medical teaching with the duties of attending the sick in the wards that the greatest amount of advantage is derivable from a hospital connection. Hospital authorities have recognized this, and, by affording such facilities to the gentlemen composing the medical staffs of the institutions under their care, have sought to attach to these medical appointments in this indirect way a tangible compensation for the services required. The interests of the patients are likewise believed to be advanced by encouraging medical teaching in connection with their treatment, since each case is more likely to receive careful attention and to be thoroughly investigated, and the action of remedies to be more minutely weighed and watched under the publicity that attaches to medical teaching. As the result of these considerations, in all the larger general hospitals of London systematic medical teaching is carried on.

The number of patients that are assigned to the care of one physician or surgeon varies from twenty to one hundred according to the size of the hospital; the number not being determined so much by the amount of work to be done, as by the number among whom the honor of appointment must be divided. It happens, therefore, that nearly, if not quite, as many gentlemen will be found dividing among themselves the care of 150 or 200 patients in the smaller institutions as are found sufficient to care for three and four times as many in the larger ones.

The physicians and surgeons of a London hospital visit their wards daily, and make a personal visit to each patient. Their work is made more onerous, and the number whose care one man might direct is restricted by the peculiar system of assistants that has grown up in these hospitals. From a desire to extend the benefits of hospital training to as many as possible, a large number of assistants are appointed, and the term of service of each made quite brief. These include, first, a corps of resident assistants, recently qualified medical men, called

house surgeons or physicians, who are responsible for the care of the patients in the intervals between the visits of the attending staff: in most of the hospitals the term of service of the house staff is but six months; in a very few only is it as long as twelve months; as a rule rooms and commons are enjoyed by the house staff of a hospital in lieu of other remuneration. Second to the house staff is a more numerous body of assistants, known as dressers: these are medical students, somewhat advanced in their studies; these look after the details of the treatment and of the dressings of particular patients that are committed to their care: the dressers usually hold their appointments without salary for from three to six months; in some institutions, indeed, the dressers pay for the privilege of holding their appointments.

Under this system a member of the attending staff is subjected to the necessity of constantly educating new assistants, only to lose them as soon as they have begun to be of value to him. Much of his own energy must be directed to watching and educating his subordinates, and he is compelled constantly to give an amount of time and labor to the details of his cases, which, under a different system, could be safely relegated to his assistants. Strangers view with surprise the personal attention to routine details of dressings which the most eminent and distinguished men constantly give in the wards of these hospitals.

Yet another feature of the organization of English hospitals are the so-called Assistant Surgeons and Physicians. These are younger medical men who attend to patients who apply for treatment at an hospital, but who are not ill enough to demand the refuge of a bed in a ward. These out-door, or walking patients apply in great numbers, and for their examination and treatment special rooms are provided. In the absence of any of the chief medical attendants, one of these assistants will attend to the patients in his wards in the hospital, and in cases of vacancy occurring among the chiefs, it is usually filled by the appointment of the senior assistant. It is not unfrequently the case that young and ambitious medical men in London spend many years, devoting a large part of every day to their duties as surgeons or physicians to the out-door patients of large hospitals, without pay, in the hope of ultimately securing positions as members of the principal medical staff of the hospital proper.

What may be termed the American system of organizing the surgical and medical staff of a general hospital has been modeled upon the English, but differs from it in some important particulars. American hospitals, like the English, are very largely under the control of private corporations, more frequently, perhaps, representing different religious bodies, in this respect differing from those of England. Though often partly endowed, the greater number of them are to a large extent dependent upon the voluntary contributions of the charitable, supplemented by sums received from patients who are able to pay something for their treatment, and in some cases, by subsidies from the state or municipal treasury. There are also many municipal and county hospitals that are of importance.

The English idea, that the honor and general professional advantage arising from a hospital connection was sufficient to make such a connection desirable, even without salary or fees of any kind, has had sufficient weight to enable managers or governors of hospitals in America generally to secure the services of able surgeons and physicians, without pay, to direct the treatment of the patients in the wards of the institutions under their management. In many cases, indeed, as the result of the necessity for pleasing different elements in a community, or in order to avoid any appearance of partiality, or as the result of social or political pressure, the managers of hospitals have felt themselves obliged to provide more medical men with places than the needs of the patients required. Two classes of appointments have been created in order to meet this necessity. The one class is purely honorary, having no regular duties or responsibilities, and involving but little more than the publication of the names of the incumbents in the list of the officers of the institution. To this class is given the name of the *Consulting Staff* of an hospital.

The Consulting Staff likewise opens an opportunity for an institution to secure the connection with its officary, of names which by reason of their eminence would bring strength and respect to the institution, although their possessors could not be expected to render much, if any, personal service. It affords also a position which may be conferred upon gentlemen who have served the institution actively for a long time and who may desire to be relieved from their active work

and yet not be compelled to entirely sever their connection with the institution.

The second class of appointments includes those to whom the duty of regular attendance in the wards of the hospital is delegated. These compose what is known as the *Attending Staff*. It is in connection with the manner in which the services of this Attending Staff are rendered that is to be found the most notable peculiarity of the American system. This is the division of the staff into classes, each of which serves the hospital for a brief period, most frequently three months, and then is followed by another, after which the first may again come on duty, and so on in rotation—in some instances an attendant enjoys but one such period of duty each year. This enables a much larger number of medical men to derive whatever advantage there may be from the name of being connected with the institution, and gives a much larger number of places for the managers of the institution to fill than would otherwise be the case. In cities where there are several hospitals it not unfrequently happens that one medical man succeeds in obtaining positions in more than one, serving each in turn, and thus doubling the advantages which such a hospital connection may give. It is not probable that the American system of hospital service was originally devised to secure such ends. Its origin has rather been due to the attempt to follow the English system of obtaining medical attendance for hospitals without pay, while these hospitals have not been able to give in return those positive advantages to their medical attendants which would be considered as a compensation for regular, prolonged and continuous service, since the social conditions which are present in the United States, the classifications of physicians, the relations of physicians to the public, and the mutual relations of hospitals and the public, differ from those which exist in Great Britain.

In general, the gentlemen who occupy hospital positions in the United States are persons already in large and engrossing general practice, and their hospital service, given as a charity, necessarily occupies a secondary place in their attention. In order to make the burden of the hospital service as light as possible, the ready device of making short terms of service, rotating with terms of entire relief, was devised.

This system of multiple appointments and of short, interrupted terms of service is unquestionably detrimental to all the best interests of a hospital. Against it may be urged, with very great force, that it tends to foster superficial and hasty service, to produce confusion of treatment, to divide responsibility, to make less certain and marked the results of treatment, to destroy the *esprit du corps* of an institution, to interfere with making those accurate, prolonged and repeated observations that alone can be of scientific value, and to diminish the educational results of the institution. Neither the greatest advantage of the patients nor the full accomplishment of the possibilities of a hospital for the general good, are attainable by this method. Its only defensible *raison d'être* is the facility which it affords for obtaining the gratuitous services of prominent and busy men.

For the purpose of carrying out the details of treatment under the direction of the attending staff, the American system provides a class known as the Resident or House Staff, which is composed of young physicians, recent graduates, who desire to supplement their systematic collegiate education by residence in a hospital for a time, where they may give their services in exchange for the experience they may gain, receiving also their board and rooms in the institution. The usual term of service is one year. In some institutions this is preceded by a term of service of six months, during which they do not reside in the hospital. Owing to the peculiar shifting character of the service of the attending staff, the amount of responsibility which is thrown upon the house staff is very great, much greater than the age and experience, or rather the youth and inexperience, of its members justifies.

Connected with many institutions are dispensaries for the treatment of "out-door" patients. The gentlemen who are appointed to the duties of this department likewise serve without pay, but, as a rule, they do not bear the close relation to the organization of the hospital proper that the "assistant surgeons" of the English hospitals do.

I have thought best to thus put side by side these brief statements of different methods of providing surgical and medical attendance for the inmates of hospitals, that by comparison the merits and demerits of each might appear, and that from a general review of them some practical application might be made in the line of improvements upon existing methods.

It is apparent that a root idea in the methods of hospital organization prevalent in the United States and Great Britain is that the recompense to be received by a visiting staff shall be indirect in its character, rather than in the nature of a fixed pecuniary stipend. As has been already stated, this is the natural result of the voluntary charity which our hospitals represent, and of the competition for hospital positions upon the part of medical men, occasioned by the supposed professional advantages which they confer.

It may be accepted without discussion that this idea of a non-salaried staff will indefinitely remain a controlling one, except possibly in the case of institutions richly endowed, or of those located in places where a sufficient number of persons of the required professional skill are not attainable. The fact ought not to be lost sight of, however, that these services, though nominally rendered gratuitously, are really to be paid for in some way. The idea of getting something for nothing will not be found a safe one to build on in hospital work any more than in any other field of human endeavor, and in this particular direction, as well as in all others, it will be found very surely that in the long run the amount and quality of the service rendered will be quite accurately determined by the value of the compensation received. The prime object, from the standpoint of a hospital, in the appointment of an attending staff, is to secure able, skillful, careful and assiduous treatment of the patients. The rewards which a hospital may offer in return are fourfold. 1. The prestige of the position itself. Whatever may be the case elsewhere, it is true that this really amounts to but little in the United States. The mere fact of an hospital appointment gives its possessor but little vantage in the professional race. The very multiplication of positions which the strife for them has occasioned has in itself lessened any prestige attending them. It is equally attainable by a position on the consulting staff as upon the visiting staff. This object alone would be likely to induce a tendency to bring down the amount of work done to the minimum required to enable the position to be held. The natural result is hasty and superficial work and the relegation of undue responsibility to subordinates. Short terms of service and prolonged periods of relief are proper accompaniments.

2. Opportunities for self-improvement by the study and observation of disease.

This is the most powerful attraction which an hospital position offers to the earnest and able student.\* In the results of the untrammelled use of these opportunities the governors and patients of a hospital are also deeply interested, for out of them must proceed a constant increase of ability and skill upon the part of those to whom the professional work of the institution is committed. It is the important contributions to knowledge that are constantly emanating from great hospitals that confer upon them their greatest prestige. It is the character of the work done in them by their surgeons and physicians that commends them to the admiration, the sympathy and the support of the public. How important, therefore, that every opportunity and help for the very best work should be always and unstintedly put at the command of the surgical and medical staff of a hospital!

The first step in the direction of supplying this second source of compensation is to give into the charge of the surgeon or physician a sufficient number of patients to ensure to him continuously an adequate and stimulating field of operation, so that his interest may be maintained and his experience enriched. The number must be large enough to afford both a variety of cases and many cases of the same kind, so that he may have sufficient amount of material for comparison and for investigation, and for testing different methods of treatment, enough to occupy not only the time which he may himself be able to give, but also to command the work of younger men whom he may be able to enlist under his direction.

The number of beds which might suffice to answer all these desiderata would differ, of course, according to the peculiarities of different cases and the complexion of the cases likely to be most numerous in the particular hospital.

The number of patients whose treatment might be directed to good advantage by a single man must vary also according to the thoroughness and minuteness with which each case is investigated and its phenomena recorded, and whether they are made the subjects of medical teaching or not.

The quality and number of the assistants that may carry out the details of work, under the direction and supervision of the principal, must also be an element of very great importance, while the character

of the nurses and the arrangement of the wards as to the classification and grouping of the patients will also have their influence. Still, there is sufficient experience available to fix in a general way the size desirable for an average service in a general hospital. Without attempting to give the data on which the conclusion is based, it is enough to say that reference to both English and French experience sustains the conclusion that between the numbers of forty and seventy-five beds will be found that most conducive to an efficient and continuously interesting and valuable service.

Such a service, if the best work is desired, should form a unit in the hospital organization, of which one man should be the permanent and responsible head, in all matters pertaining to the surgical or medical care of the patients. The number and qualifications of his assistants should be subject to his control. The chief nurses, at least, should likewise be permanently attached to the service. Everything likely to interfere with continuity of service and the fixing of responsibility should be avoided. From the most inferior servant to the chief of the service, a spirit of enthusiasm in the results of that particular service might thus be fostered.

It might be questioned, especially in the United States, where methods of a diametrically opposite kind have so long prevailed, whether men of the desired ability would be willing to devote so much of their time continuously to gratuitous hospital duties, as would be required by the method now advocated. The writer, in answer to this, would say that it is probable that a very considerable proportion of the gentlemen already charged with large and engrossing private practices, who are willing to occupy hospital positions as at present organized, would find it undesirable to fill them if their duties were enlarged as recommended. That an institution might not lose the advantage of the connection of these men with it in some form, the "Consulting Staff" readily suggests itself as a desirable means.

The greater the variety of the cases that may be found in a hospital service, and the greater the professional interest attaching to the individual cases, the more will the service be esteemed as valuable by a professional man. This is the primary thing to be kept in view, therefore, in dividing the work of an institution, if it is wished to secure the

continuous, undivided and enthusiastic labors in the treatment of the patients of the class of men to whom it would be desirable to commit such responsibility. The experience of other countries, and the slight experience already beginning to accumulate in a very few hospitals in the United States, sufficiently demonstrates that, under conditions such as have been described, men of the highest skill and attainments are not wanting to fill such places, especially if the governors of hospitals give them facilities for realizing the other sources of compensation next to be briefly considered.

3. A third source of compensation is found in the opportunities which a hospital position may give to its occupant, by the publicity of his work, to extend his reputation, and especially to gain the confidence of his professional colleagues in general practice. The latter is always particularly a justifiable object of ambition, and may be especially accomplished if the hospital attendant is free to invite the profession at large to witness his work in the hospital. It is no more than right, therefore, that hospital authorities should afford every facility to its visiting staff to habitually make public clinical demonstrations in the wards of the hospital, as far as is consistent with the well-being of the patients.

4. The last tangible source of compensation to be here mentioned is closely allied to the preceding, and consists in the opportunities for disseminating useful knowledge by teaching and writing which a hospital position affords. The responsibilities in this direction attaching to hospital positions have already been alluded to in the introductory part of this paper. The fulfillment of these responsibilities brings a rich reward in increase of reputation and influence in any community. Every hospital should be a school of instruction, not necessarily where full courses of systematic instruction leading up to a degree in medicine are given, but all the same a practical school, in which, to as full an extent as possible, medical teaching should be carried on. The combined effect of all the conditions which have been enumerated will be, not only to supply to a diligent and earnest student rich materials, out of which to make valuable written contributions to the science and practice of medicine, the results of personal observation and original research, but also to stimulate him to the performance of such work, a

work that will reflect credit upon the institution from which it emanates quite as much as upon the individual worker.

There remains for brief consideration the question, what system of assistants will be most likely to promote the welfare of the patients, carry on the work of a hospital most economically, and render the labors of the principal medical attendants most efficient and least onerous?

The work of a principal member of the visiting staff would be advantaged, and could be extended if there were associated with him an assistant who understood his methods and shared in his aims, and whose professional attainments were of a character to enable him to carry on the work of his chief during any necessary absences, as well as to lighten his labors by taking charge of cases that might be delegated to him in the ordinary course of work. To him, also, could be delegated the duty of directing the necessary work of an out-door, or dispensary department, if such should exist. Since such an assistant would be the direct representative and coadjutor of his chief, the privilege of nominating him should be delegated to the chief and the term of service should be at the pleasure of the same officer, the Board of Governors simply reserving the right of confirming the nomination before it should become a finality. For the completion of the organization of each service, in addition to its chief and his principal permanent assistant, there will be required still a certain number of young medical men, whose position, while it is that of pupils, the object they seek being experience and practical education, is still one of responsibility and importance, since under the direction of their superiors the details of investigations, of observations, of records, of dressings, of treatment, must be carried out by them. Frequent changes in the personnel of such a staff, either by rotation of duty among those already resident in a hospital, or by short terms of service and new appointments, would be quite subversive of the thorough and continuous work, and the highest efficiency of each particular staff which the interests of the institution as a whole demand. It is true that by this method a larger number of individuals would be enabled to gain some practical experience that would be of value to them personally, but this would be at the expense of every other interest involved. Un-

doubtedly methods of clinical teaching might be devised that would accomplish as much in the way of instruction, without trenching so dangerously upon the efficiency of the responsible staff of assistants. The French system of *Externes and Stagiaires* is suggestive in this direction. The English system of Dressers is susceptible of being developed so as to fully meet the case, provided a greater degree of permanence and responsibility were given to the members of their House Staff. Under the designations of Junior Assistants, Clinical Assistants, Clinical Pupils, Dressers, or whatever other term may be devised, it is quite possible to attach to each service as many students or young practitioners as the size and character of any particular service may warrant. The term of service of such pupil-assistants may be as brief as their own convenience and wish may dictate, or as long as the scheme of medical instruction in accordance with which they are working may require.

The number and length of service of the real clinical nucleus, the responsible House Staff or *Internes*, is a matter of more importance. For the adequate discharge of the work of each service of the size which has been recommended, averaging perhaps sixty beds, a staff of at least two internes would be required, three would be better. Appointments to these positions should be by competitive examinations and tests of a practical character open to all comers. The full value to the hospital, as well as to the chief of the service to which these assistants are to be attached, cannot be obtained by a short service. A term of two years suggests itself as a desirable one. This might be divided into a preliminary period of six months, during which the appointee need not reside in the hospital, but should report daily at a stated hour, to be entrusted with junior duties, and to serve as an assistant to the residents proper, while he is being trained to assume more responsible duties. This should be followed by a period of one year of actual residence in the hospital, rooms and commons being provided by the hospital. This is a period of constant and unrelenting attention to the detailed duties of ward work. At the expiration of this period the services of these men, through the training and experience which they have had, has become of some value to the institution. To let them go now and fill their places by new and raw men, entails not

only increased care and friction in the work of the hospital, but a real pecuniary loss in the more prolonged residence of patients and the waste of material used in the treatment of patients through the inexperience of new incumbents. It is not improbable that a real saving in the expenses of a hospital would be effected by the payment of a sufficient salary to its senior internes to induce them to prolong the term of their duty in the hospital. A further service of six months, with a small salary, in addition to their rooms and lodging, would complete the full term of two years. Meanwhile, by a proper alternation in the time of making new appointments, the service would never be without the presence of men of considerable training and experience.

This plan contemplates that the young man who occupies a position as interne shall pass through all its grades in the same service, to the full success and development of which he renders his continuous work. He is trained in the views and methods of the chief of the service, he assists him in his researches, he has an opportunity of winning a confidence and friendship that may be of great advantage to him in his after-career. It is safe to assume that to such positions men of the highest character and most thorough training would be attracted.

In conclusion, it may be said that there is much in the condition of professional affairs in the United States at the present to encourage the discussion of such questions as this. Though the changes which the past fifteen years have witnessed in many matters connected with medical education and practice have been very great, as yet everything is still in a plastic state. Especially in matters connected with hospital organization and the relation of hospitals to medical education are there evidences of dissatisfaction with past methods, and a desire for improvement. Perhaps nothing is contributing more to this than the advances which have been made in surgery, and the demands for a more thorough training and a greater attention to matters of minute detail upon the part of those upon whom the surgeon must rely for assistance in carrying out his work. Fields hitherto closed to operative attempts are now confidently and safely entered into, and procedures formerly uncertain and perilous in their nature are now surely conducted to undelayed recovery, provided in the course of their execution the requirements of an exact experiment in natural science are

complied with. The constant supervision of the same directing mind and the most perfect familiarity with the objects and methods to be adopted upon the part of all sharing the work have assumed an importance never before existing. While it is true, indeed, that the considerations which have been urged in the foregoing pages are of importance in the organization of the purely medical as well as the surgical work of a hospital, it is especially in connection with the latter that they are urged.

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